

# **Annual Report For NPDES MS4 Permit**

**DNR Permit No. 77-36-0-02**



Period Covered:  
**January 1, 2013 through December 31,  
2013**

FOX PN: 7024-03S.301



## **National Pollutant Discharge Elimination System (NPDES) Permit**

**Permittee:**

City of Grimes  
101 N. Harvey Street  
Grimes, Iowa 50111

**Identity and location of facility:**

City of Grimes MS4  
Grimes, Iowa 50111

**Receiving Water Courses:**

North Walnut Creek (*Des Moines River*), Little Beaver Creek  
(*Raccoon River*)

**Iowa Dept. of Natural Resources NPDES Permit Number:**

77-36-0-02

**EPA Number:**

IA0078883

**Date of Original Issuance:**

January 14, 2005

**Date of Re-issuance:**

January 14, 2010

**Date of Expiration:**

January 13, 2015

**File Renewal Deadline:**

July 17, 2014 -- received certified letter from IDNR, dated  
1.06.2014, informing of need to renew the permit by 7.17.2014

The following report summarizes the NPDES permit requirements. The status of each item is described and supporting documentation is attached if feasible.

## **PART I. DISCHARGES AUTHORIZED UNDER THIS PERMIT**

### **A. Permit Area**

This permit covers all areas within the corporate limits of the City of Grimes, totaling approximately 12.0 square miles, which is drained by the city's Municipal Separate Storm Sewer System (MS4) and any other areas annexed while this permit is in effect.

### **B. Authorized Discharges - no comments**

### **C. Limitations on Coverage**

City acknowledges storm water discharges that are mixed with non-storm water and storm water associated with industrial activity are not authorized or regulated by the permit except when the discharge is in compliance with a separate NPDES permit or identified by and in compliance with Part IV. of this permit.

## **PART II. STORM WATER POLLUTION PREVENTION & MANAGEMENT**

### **A. Public Education and Outreach on Storm Water Impacts**

#### **1. Articles in Monthly Newsletter**

The permit requires publishing at least six articles per year in the City newsletter. The articles are to contain information regarding stormwater impacts on water quality and measures that can be implemented to reduce water quality degradation from stormwater. Since obtaining the permit, the City has discontinued regular publication of a monthly newsletter and now publishes on a less frequent basis. To meet the requirement, the City provides stormwater information on their website, the local cable channel and through social media {list serve, facebook & twitter}. On the "Home Page" of the City website, a link to the ISWEP website is at the bottom of the page and the phone number to report stormwater concerns is listed at the left side.

The City continues to be a member in the Iowa Stormwater Education Program (ISWEP) through the Iowa Stormwater Partnership. ISWEP continues to produce educational materials and provide new information to members by distributing electronic files and hard copies of resources quarterly. The general public can also access the materials directly from the ISWEP website.

The City continues to be enrolled in the Urban Environmental Partnership (UEP) to provide stormwater educational materials to schools located within the Dallas Center-Grimes (DC-G) School District.

#### Goal(s):

To provide new information to the public at least six times per year. New information can include presenting a previously covered topic in a new context or format (i.e. re-interpretation of a topic – showing additional items that are harmful to receiving waters if dumped in a drain).

#### Goal(s) met:

City has added new articles to the website, has expanded distribution of paper copies of educational material (Public Library), and has added social networking

site(s) {facebook & twitter} to City communication capabilities. The City currently utilizes an e-mail alert system for immediate or near term needs (i.e. road closings, school closings, snow plowing, mosquito spraying, changes in garbage pick-up, etc.). Storm water educational materials are provided to school children within the DC-G School District during school hours.

See Appendix A for copies of information sent by social media.

## **2. Telephone Hotline Number**

The City has designated the main city line as the number to call for the stormwater hotline. A reporting form has been developed to keep record of calls and facilitate routing to appropriate personnel. The number is published on the Mediacom Channel, City website ([www.grimesiowa.gov](http://www.grimesiowa.gov)), local newspapers and distributed with educational materials.

### Goal(s):

Document and respond to all phone call and e-mails received.

### Goal(s) met:

The City documented making or receiving and responding to phone calls/e-mails in 2013. Calls are usually to request action about cleaning a roadway or to assist with information about resolving a drainage issue. A sampling of the requests and responses is listed in Appendix B.

## **3. Stormwater Information and Education**

The City distributes a wide range of stormwater education materials to various target groups. A General Education Program provides resources to members of the community and includes distribution of stormwater information at several locations in town. One of the primary target groups is homebuilders. The City distributes a folder containing the general educational materials along with stormwater ordinances and corresponding checklists. The packet is provided to all individuals or companies requesting a building permit. A copy of this literature has been previously provided to the IDNR. The following materials are included in the packet:

- Construction Site Erosion and Sediment Control Resources, reference sheet
- Storm Water Regulation and the Construction Industry, Brochure
- Conservation Strategies for Growing Communities, Informational Booklet
- Managing Storm Water in Iowa Communities, Brochure
- Storm Water Pollution Prevention Plans, Brochure
- Compost and Soil Quality, NRCS Brochure

The City is looking to revise the materials to conform to the requirements of General Permit #2 re-issued October 1, 2012.

### Goal(s):

To provide stormwater information and answer questions for members of the community and to provide information in a pro-active manner.

### Goal(s) met:

See information provided below:

*General Education Program:*

The goal of the City program is to make stormwater information available to the community and educate numerous target audiences using various tools. To meet the goal, the City has contracted with two organizations (Urban Environmental Partnership and Iowa Storm Water Education Program) to provide goods and services to assist in educating the targeted audiences. Informational content includes storm water impacts on water quality/quantity and measures that can be implemented to reduce water quality degradation and volume of storm water. The information listed below shows how the City is meeting the goal.

*Urban Environmental Partnership (UEP)*

The City continued participation with UEP in 2013 to better inform school children about water and waste issues. UEP was formed in April 2000 by the following four utilities: Metro Waste Authority, Des Moines Water Works, City of Des Moines Storm Water Utility and Wastewater Reclamation Authority.

*Iowa Storm Water Education Program (ISWEP)*

The City is a member of ISWEP, along with 34 other cities, three (3) Soil & Water Conservation Districts (SWCD's), the University of Iowa and five (5) Architectural/Engineering firms. The City distributes and uses educational resources in-house provided by ISWEP. ISWEP provides information on a quarterly basis based on a central topic. In addition, ISWEP supported storm water education efforts at the 2013 Iowa Water Festival, held each year at the Des Moines Area Community College in Ankeny, by providing educational material and staff assistance to the 1,500 5<sup>th</sup> graders in attendance from across the state.

## See Appendix C for ISWEP 2013 Accomplishments

*Website*

The City website is up-graded on a regular basis and new information continually added to keep the public up-to-date with what is happening in the community. The website contains information regarding stormwater impacts on water quality; measures residents can implement to reduce pollutants in storm water; regulations and current local topics; and links to other relevant websites. The City also supports the Iowa Storm Water Education Program website [www.iowastormwater.org](http://www.iowastormwater.org) that contains more specific stormwater educational information for numerous target audiences. A measure of benefit is to monitor activity on a website. The estimated number of hits on the ISWEP website in 2013 was 38,000.

*Developer Guidance*

The City requires all new developments to meet specific stormwater discharge criteria and to provide water quality treatment for stormwater runoff from the sites. The City works closely with developers and site planners to ensure proper stormwater designs are achieved. At the beginning of a project, the City provides owners/consultants with a Stormwater Management Review Checklist. This document includes a summary of design requirements for stormwater management controls and a list of items to submit for review. During project planning, the City conducts a series of thorough reviews and provides feedback to ensure stormwater requirements can be met with the proposed site plans. When project sites include

stormwater management facilities, such as detention ponds, the City requires owners to submit a Stormwater Management Facility Maintenance Covenant and Permanent Easement Agreement. The agreement establishes that owners are responsible for routine inspections and maintenance for stormwater facilities. Developers and contractors are reminded of their stormwater responsibilities at a pre-construction meeting.

## **B. Public Involvement and Participation**

### **1. Establish a storm water advisory committee**

The City is required to establish an advisory committee and meet once per calendar year.

#### Goal(s):

To expand meeting involvement.

#### Goal(s) met:

A resident, Lee Goldsmith, has volunteered to assist the City with stormwater involvement and education. Ms. Goldsmith is coordinating a public workshop event on March 24, 2014 with Jennifer Welch of the Polk Soil and Water Conservation District. The workshop will be hosted at the Grimes Community Complex and present information about "Rainscaping".

See Appendix D for part of Ms. Goldsmith's profile on "LinkedIn", e-mail correspondence about establishing the workshop and a poster for advertising the workshop.

#### *2013 Meetings*

See Part III Reporting Requirements, h. Meetings Held for a listing of meetings and topics.

### **2. Adopt-a-Stream**

The City has determined there are approximately 7 miles of urban streams to be assigned for Adopt-a-Stream clean-up activities. Stakeholders of concern have been identified. A copy of the formalized program participation the City will utilize for the Program was provided with the 2010 annual report.

#### Goal(s):

To conduct a pick-up of a one mile length of stream(s) in 2013.

#### Goal(s) met:

A local Girl Scouts Troop conducted a stream clean-up on October 27<sup>th</sup>, 2013 along the stream associated with the Grimes Outfall Trunk Sewer and Drainage Channel Maintenance project. That project improved approximately 6,000 l.f. of channel for Little Beaver Creek and Little Beaver Creek Tributary. The Girl Scouts enjoyed the experience and have committed to conducting stream clean-up efforts in 2014.

See Appendix E for documentation of the meeting(s) and clean-up.

## **C. Illicit Discharge Detection and Elimination (IDDE)**

### **1. Illicit Discharge Prohibition Ordinance**

The Illicit Discharge Prohibition Ordinance #555, adding Chapter 103 Illicit Discharge and Connection Ordinance, passed final reading on 6.12.2007 after being published by NE Dallas County Recorder on April 26<sup>th</sup>, 2007. A copy of the ordinance has been previously provided.

### **2. Illicit Discharge Detection and Elimination Program**

The City utilizes the Guidance Manual, dated 2004, that was created by the Center for Watershed Protection and Robert Pitt, University of Alabama as a guidance and instruction manual for Staff and volunteers. The City also distributes literature provided by ISWEP for continuing education to Staff and Public regarding IDDE.

#### Goal(s):

To periodically observe all outfall structures during dry weather conditions and document those activities.

#### Goal(s) met:

The City has inspected several existing storm sewer outfalls throughout the year (dry weather conditions). Sediment was noted at several of these outfalls, however there were no illicit discharges found. Staff recognizes that illicit discharges are to be reported to IDNR Field Office #5 no later than the end of the first business day of discovery. In 2012, the City began a new cycle of televising and cleaning the sanitary sewer system, approximately 33% of the system was cleaned. The City continues to conduct video inspection and jet and clean new portions of the sanitary sewer system added with a subdivision. The City uses the televising reports to locate and eliminate illicit discharges into the sanitary sewer system. Illicit connections found during construction of City sponsored projects are disconnected and routed to the proper system. Staff conducted meetings with homebuilder contractors regarding preventing sediment, aggregate and other deleterious materials from entering the system when making the utility service connection to the main. All drain connections encountered during construction of the Grimes SE Main Street Reconstruction Project were inspected for illicit discharges – none were found.

As part of the continuing development of the Illicit Discharge Program, the City has developed a Spill Response Plan. A copy of the plan was previously provided.

## **D. Construction Site Storm Water Runoff Control**

### **1. Construction Site Runoff Control Ordinance**

The City of Grimes was required to adopt an ordinance by Jan. 1, 2006 that followed the requirements below. The section of the ordinance that meets each requirement is shown in parentheses. The ordinance was based on the Iowa Municipal Utilities (IAMU) model ordinance. However, some changes were made based on comments received during the stakeholder meetings and public hearings. The ordinance was adopted by City Council on December 22, 2005. A copy of the ordinance was provided with the 2005 annual report.

- Enforce Erosion and Sediment control on all sites that NPDES permits are required (Section 102.04.1)
- Address waste at construction sites (Section 102.04.6.a)
- Authority to issue an order to terminate activities due to failure to implement or maintain pollution control BMPs (Section 102.07)
- Authority for permittee to enter private property for the purposes of compliance inspections (Section 102.05)
- Penalties for non-compliance (Section 102.07 and 102.08)
- Require site plan and pollution prevention plan review and approval (Section 102.04.1 and 102.04.11)
- Require compliance with the Department's Storm Water General Permit No. 2 (Section 102.04.6)

## **2. Construction Site Review and Inspection Program**

The permit requires the City to review and approve site plans and pollution prevention plans for all sites that require an NPDES construction permit prior to the issuance of any permits for the site by the City for construction activities. The City already has procedures in place that require site plan review prior to the issuance of building permits for individual lots or approval of construction plans for larger developments.

The Stormwater Management and Erosion and Sediment Control Ordinance addresses review and approval of Storm Water Pollution Prevention Plans (SWPPPs). The ordinance also has provisions for inspection of all sites.

Currently, the City works with one consultant (FOX Engineering Associates, Inc.), for the review, approval, and inspection of all development and construction. The Construction Site Review and Inspection Program with regards to erosion and sediment control is divided in the following manner:

FOX Engineering Associates, Inc. reviews and comments on all submissions required for site plans, preliminary plats, final plats, and construction drawings. They also provide inspection services for these projects. FOX inspects construction of underground utilities and paving for compliance with the plans and specifications. As part of their service, FOX has been observing sites for compliance with NPDES permits. Although a formal erosion and sediment control inspection is not completed every time they are onsite, if a violation is noted, a report is made. The City developed and implemented review and inspection checklists to formalize the process for record keeping purposes for compliance with this permit requirement.

City personnel administer all residential building permits and corresponding inspections. The inspector completes two erosion and sediment control inspections per building permit with a minimum of one per calendar quarter. Additional compliance inspections are completed if necessary. The inspector is also onsite for other types of compliance inspections (electrical, plumbing, etc.). Although a formal erosion and sediment control inspection is not completed every time they are onsite, if a violation is noted, a report is made. The City developed and implemented review and inspection checklists that are provided to building permit applicants.



Goal(s):

To review all submissions, applications and sites in a timely manner and document those activities associated with Construction Site Discharge Detection and Elimination.

Goal(s) met:

For 2013, each construction building permit, subdivision construction plan or site plan that had an erosion plan had that plan reviewed. Staff reviewed and monitored each site as per the requirements of our permit. Those sites with an assigned DNR Authorization number were inspected at least once each calendar quarter.

## **E. Post Construction Storm Water Management**

### **1. Post-Construction Site Runoff Control Policy Ordinance**

The Post-Construction Stormwater Runoff Control Ordinance #585, adding Chapter 104 Post-Construction Stormwater Control, passed final reading on 1.26.2010. The ordinance was based on the Iowa Municipal Utilities (IAMU) model ordinance. However, some changes were made based on comments received during conversations with other cities that have implemented the ordinance. A copy of the ordinance was provided with the 2010 annual report.

Goal(s):

To adopt a Post-Construction Stormwater Runoff Control Ordinance that is in compliance with permit requirements.

Goal(s) met:

Adopted ordinance meets the requirements of the permit.

### **2. Site Plan review of Post-Construction Runoff Controls**

Prior to any construction the City requires a storm water management plan (according to SUDAS requirements) and a SWPPP to be in place. Prior to acceptance of a development, site plan, or plat the City reviews the storm water management plan for compliance. If said plan is not in compliance then a building permit or acceptance of the final plat is not granted.

Goal(s):

To review each site plan and subdivision for Post-Construction Controls as per the ordinance.

Goal(s) met:

City is reviewing requirements for post-construction runoff controls for all construction sites for which coverage under NPDES storm water permits are required.

A copy of the "Stormwater Management Plan Review Checklist for Design Professionals" and "Storm Water Management Facility Maintenance Covenant and Permanent Easement Agreement" utilized by the City during plan review was submitted with the 2011 report.

See Appendix F for copies of agreements approved by City for several of the projects started in 2013.

### **3. Inspection of Runoff Control Devices**

Municipally owned storm water control devices and structures shall be inspected and reviewed for proper maintenance. Educational materials outlining proper maintenance procedures shall be developed and made available to landowner.

Goal(s):

To review each control device/structure and document the inspection. To develop maintenance procedure educational materials.

Goal(s) met:

City inspects municipally owned facilities. Educational materials have been developed and are distributed.

### **4. Watershed Assessment Program**

A watershed assessment program and comprehensive land use plan shall be developed which outlines measures to be implemented which reduce flooding, reduce erosion in ditches and streams, improve water quality and reduce degradation of habitat for fish and wildlife.

Goal(s):

City will update the comprehensive land use plan. City will draft a Storm Water Management Plan.

Goal(s) met:

Copy of the comprehensive development plan adopted September 14, 2010 was provided with the 2010 annual report. A copy of the Storm Water Management Plan was provided with the 2011 annual report.

## **F. Pollution Prevention / Good Housekeeping**

### **1. Pet Waste Ordinance**

The City is required to have an ordinance in place regulating the cleanup of pet feces. The City revised Chapters 47 Park Regulations, 50 Nuisance Abatement Procedure and 55 Animal Protection and Control with Ordinance #576 to clarify and strengthen the requirements for owners to pickup waste from their pets. The ordinance was adopted by City Council on 7.14.2009. A copy of the ordinance was submitted with the 2009 annual report.

Goal(s):

To enforce the ordinance, follow-up on all complaints in a timely manner and document those activities.

Goal(s) met:

Staff and enforcement officials are aware of the ordinance. To date no complaints or actions were reported.

### **2. Operation and Maintenance of MS4**

The City is required to have a program for inspecting, maintaining and cleaning all components of the MS4. All above-ground components shall be inspected at least once each year and maintenance performed as appropriate.

The City has an operation and maintenance program for the MS4 in place. The system is divided and assigned to a public works employee. Each Monday morning Staff patrols the portion of the system assigned to them. Staff is instructed to perform maintenance immediately as required (clean clogged components, etc.). Any repairs needed are noted and reported to the Public Works Director.

Goal(s):

To document those activities in 2013.

Goal(s) met:

Better documentation was achieved.

**3. Pesticide and Fertilizer Management Program**

The City does not store, apply or dispose of pesticides or fertilizers. The City contracts with local companies for these services. Those companies have staff licensed to apply chemicals.

Company and contact information is:

TruGreen Chemlawn  
Tim Fritz  
301 SW Oralabor Road  
Ankeny, Iowa 50021  
(515) 289-0002

Wilson Brothers  
P.O. Box 396  
Perry, Iowa 50220  
(515) 465-3690

Goal(s):

To begin the study to determine the least application rate required for effective lawn care.

Goal(s) met:

See Appendix G for a copy of the report and site work orders.

**4. Training Program for Municipal Employees**

City is required to continue implementation of a training program for municipal employees regarding practices to be implemented in city operations to reduce pollutants in stormwater.

Staff attended meetings at City facilities to have stormwater issues explained to them. Topics included: what staff responsibilities are, how to conduct inspections, and record keeping. Staff & FOX also attended the following off-site training opportunities:

Quarterly ISWEP meetings (Feb. 5, May 21, Dec. 5) were attended to receive educational materials and discuss topics of concern to the members of the organization. Items discussed included: problems with implementing topsoil requirements, possible changes to topsoil requirements, future regulations, etc.

Conferences: Iowa Storm Water & Iowa Water Conference 2013, March 4 & 5

Training:

General Permit #2 updates and Topsoil Requirements,  
at Ames City Hall, Feb. 27, 2013

Rain Garden webinar, 2.20.2013

Scott Clyce (Building Inspector) renewed his certification for "Iowa Certified Construction Site Pollution Prevention Inspector".

See Appendix H for information about the conferences/training opportunities.

Goal(s):

To have Staff participate in more training events in 2013.

Goal(s) met:

Staff participated in more training events.

**5. City Facilities BMPs**

- ♦ The City has implemented the following BMP's:
- ♦ Installation of a wash bay, with sand/oil separator, at the City Maintenance Building
- ♦ Installation of spill kit near the fuel tanks at the Maintenance Building.
- ♦ Installation of silt sock around dumpster located at the Maintenance Building.
- ♦ Sand/salt mixture is not stored at City facilities. It is picked up on an "as needed" basis from the IDOT.
- ♦ City mows most of their facilities. A local lawn care contractor performs chemical applications. Contractor is required to comply with City guidelines, especially as these guidelines relate to erosion and stormwater concerns and fertilizer and pesticide storage, handling and application rates.
- ♦ City is maintaining a buffer strip along park edges that discharge into streambeds.
- ♦ Detention ponds are encouraged in new developments to control runoff volume and sediment settling.
- ♦ City has purchased a street sweeper and regularly cleans streets.

Goal(s):

To properly maintain all BMP's and document those activities associated with maintaining BMP's.

Goal(s) met:

Maintenance to BMP's was improved. See Appendix I for a log of street sweeping activity during April and May of 2013.

**PART III. REPORTING REQUIREMENTS**

1. The status of implementing the components of this permit. Any modifications developed by the permittee and approved by the Department or required by the Department shall also be addressed.

2. A summary of the data, including monitoring data if it exists, that is generated within the reporting period including a narrative description of storm water quality improvements or degradation. This is not to be construed as a requirement to conduct monitoring except in cases where an illicit discharge is suspected.
3. An estimate of the previous fiscal year's expenditures for implementation of the management plan and the budget for the current fiscal year.
4. A summary describing the number and nature of inspections, enforcement actions, illicit discharges discovered, ordinances adopted, public education programs conducted, components of the MS4 cleaned, stream restoration activities, meetings held and any other actions taken by the permittee required by this permit during the reporting period.

### **Financial Summary**

#### **2013**

Costs for 2013 increased due to stronger implementation and enforcement of all stormwater ordinances, increased education efforts, purchase of equipment, expensive stormwater capital projects and additional mapping. The following summarizes items related to the permit that the city anticipates incurring costs for:

- Enrollment in Iowa Stormwater Partnership ISWEP
- Staff and Consultant time to attend Quarterly ISWEP meetings and distribute materials
- Enrollment in Urban Environmental Partnership (UEP)
- Staff and Consultant time to monitor materials from UEP
- Staff and Consultant time for Stormwater Advisory Committee
- Staff and Consultant time to monitor and enforce Illicit Discharge ordinance
- Staff and Consultant time to follow-up on reports of an Illicit Discharge
- Staff and Consultant time to review plans and agreements associated with the Post-Construction Site Runoff Control policy ordinance
- Staff and Consultant time to review Developer "Stormwater Management Plans"
- Staff and Consultant time to review plans and agreements associated with the Construction Site Review and Inspection ordinance
- Staff and Consultant time to monitor and enforce the Post Construction Site Runoff Control Policy ordinance
- Staff and Consultant time to monitor and enforce Construction Site Review and Inspection ordinance
- Staff and Consultant time to develop and implement the Watershed Assessment Program
- Staff and Consultant time for Storm Sewer Mapping/Modeling
- Staff and consultant time for Adopt-a-Stream program
- Materials and supplies for Adopt-a-Stream program
- Staff and Consultant time to implement and monitor the stormwater utility fee
- Staff and Consultant time to develop educational materials for inspection of run-off control devices
- Staff and Consultant time for water monitoring
- Materials and supplies for education programs
- Materials and supplies for Construction Site Review and Inspection Program
- Staff and Consultant time for review of site plans and SWPPPs
- Staff and Consultant time to perform erosion site inspections and record keeping for permitted sites
- Staff and Consultant time for general stormwater program administration

- Staff and equipment for street cleaning
- Stormwater infrastructure as part of City projects

Estimated total cost to implement the NPDES Stormwater Permit for 2014 is \$650,000 including capital improvements, maintenance, programs, outside fees, and staff and consultant costs.

## **2014**

Costs for 2014 are expected to be about the same as 2013. Costs are expected to be about the same but may rise due to stronger implementation and enforcement of stormwater ordinances, increased education efforts, water sampling, additional infra-structure improvements and additional mapping.

The City began collecting fees from the Storm Water Utility fee in February of 2013. Currently, the City estimates receipts from the fee will be \$30,000.00 per month.

## **Summaries**

### *Number and Nature of Inspections:*

1. The City issued 196 building permits (145 single-family, 31 multi-family & 20 commercial), that required NPDES compliance inspection. 340 inspections were conducted and recorded by Staff.
2. FOX observed 50 sites for compliance with NPDES permits. All sites received a quarterly inspection (1<sup>st</sup> quarter – 47; 2<sup>nd</sup> quarter – 44; 3<sup>rd</sup> quarter – 47; 4<sup>th</sup> quarter – 50). Two of the sites required weekly inspections or monitoring. 311 reports were officially recorded for the inspections. There were also approximately 40 site visits not officially recorded.

### *Enforcement actions:*

1. The City made more than 65 calls to developers/builders to remind them of erosion responsibilities. Most of the requests were complied with in a timely manner. Some calls were made to building permit holders reminding them of the requirement to install erosion control measures prior to beginning work. Predominant issues were: lack of sufficient erosion control, track-out, stop using neighboring lot, PCC washout and construction debris. Most violations were handled in a timely manner via a telephone call or talking to the General Contractor on-site. Because a majority of the builders have been working in Grimes for a number of years, they appear to accept that the City is serious about stormwater matters and comply with requests in a timely manner. Problems are not escalating to the level of requiring a written violation.

See Appendix J for the record of inspections and phone calls, as recorded in their "Outlook" system, made by the building inspector in the month of December. Other months were similar.

2. FOX sent some formal letters to developers/contractors notifying them of NPDES compliance issues as well as sent e-mails or made phone calls. Some were punchlist letters that contained a separate section addressing erosion concerns and some were letters addressing expired permits. E-mails and phone calls primarily focused on track-out. Predominant issues were: establishing a PCC washout station for homebuilders, maintenance of the PCC washout station, establishing intake protection, maintenance of intake protection, trackout/cleaning of streets and seeding/mulching. Most of the issues were resolved shortly after the letters were received. More than 50 phone calls, or discussions at the site, were made to contractors and developers to remind them of their responsibilities so that a letter did not have to be sent to resolve the issue.

A typical cross-section of communication is shown in Appendix B.

#### *Illicit Discharges Discovered*

1. May 8, 2013....Two volunteers for Iowater were looking to perform water sampling at the North James Street creek crossing between NW 18<sup>th</sup> and NW 23<sup>rd</sup> Streets. They noticed discolored water and called the City. Joe McAreavy (Public Works Director) took the call and investigated the site (within 1 hour). The discharge was small enough to have dissipated by the time Mr. McAreavy visited the site. FOX was called to also view the site and found no evidence of harm to the stream. See Appendix K for a telephone record attached as documentation.
2. May 17, 2013....A farm chemical spill was reported to the City at about 12:30 p.m. Public Works Director Joe McAreavy took the call and coordinated efforts to investigate and remediate the spill. FOX was called to visit the site and met with the farmer (Lyle Pietzman) and a representative of the DNR. Mr. Pietzman had diluted 8 gallons of Treflan in 250 gallons of water and was driving to a field on the south side of SE 19<sup>th</sup> Street. As he was driving along SE 19<sup>th</sup> Street, the tank broke and began spilling contents on the roadway. Mr. Pietzman pulled into the field, the field entrance is near SE Jacob Street, where the remainder of the tank's contents spilled on the ground. The ground absorbed the spill, no chemical reached a waterway. Mr. Pietzman removed the contaminated soil and replaced with good soil. See Appendix K for correspondence related to the incident.

In addition, the City treated overflows at PCC washout stations and track-out onto city streets as illicit discharges. At least twenty (20) phone calls were made to contractors/builders to remind them to perform maintenance to the washout stations and to install the stabilized entrance to the site. Some calls were made to clean streets.

#### *Ordinances Adopted*

City adopted the Stormwater Management Utility (Chapter 117) Ordinance 611 on 12.11.2012. All required ordinances have been adopted. A revision to the Stormwater Management Utility Ordinance

was passed by Council at their April 9, 2013 meeting. *(this ordinance is being amended to delete the provision that provides that all government owned properties are exempt from Stormw Water fees and further defines ag-properties as those that are in row crop or animal production and have less that 500 s.f. of impervious surface).*

See Appendix L for copy of the March 13, 2013 Council meeting that passed the second reading of the ordinance amendment.

#### *Public Education Programs Conducted*

Staff continued to educate new builders about stormwater ordinances and provided them with a folder containing stormwater information. Information regarding stormwater concerns is available on the public access channel and through the website. Educational materials acquired at the Iowa Stormwater Education Program (ISWEP) quarterly meetings are displayed in the lobby of City Hall and at the Public Library. Schoolchildren directly receive the educational materials provided by Urban Environmental Partnership (UEP).

See Appendix M for a copy of letters and maps provided to homebuilders to inform them about storm water concerns for the platted subdivision in which they are building.

#### *Components of the MS4 Cleaned*

The City contracts with Hydro-Kleen or Accu-Jet, commercial companies providing industrial cleaning and environmental services, to remove sediment build-up in the storm sewer system. In 2012, the City proceeded with a lease/purchase agreement for a street sweeper.

- ♦ City removed storm damage after severe weather passed through the area.
- ♦ City completed street sweeping on an "as-needed" basis throughout the year.

#### *Stream Restoration Activities*

1. Autumn Park Plats 2 & 3- City has received money from the developer to improve stream banks – expect work to be completed in near future.
- 2.

#### *Meetings Held*

Numerous formal and informal meetings, in addition to City Council meetings, were held with stakeholders to discuss the project to re-construct 4 blocks of South Main Street in the old park of town. This project will involve street pavement removal and replacement, relocation of utilities, increased parking areas, improvements to utilities.



Formal pre-construction meetings were held for construction and large building projects in the City. The meetings were usually held at City Hall and included discussion about: stormwater responsibilities, how many inspections would be conducted, if inspections would be an additional charge, expectations for compliance, etc.

The projects included:

- ♦ Autumn Park Plat 2: Subdivision, 12.2 acres, 39 SFR lots – added a dry detention basin for this site. In accordance with the Developers agreement, the City has received money to improve approximately 2,000 linear feet of creek channel running between Plats 2 & 3 and on the east side of Plat 3. The city intends to perform the improvements in the next few years.
- ♦
- ♦ Autumn Park Plat 3: Subdivision, 27.92 acres, 57 SFR lots – added two dry detention basins for this site.
- ♦
- ♦ Grimes SE Main Street Reconstruction Project: Reconstructing approximately 5 blocks of City roadways includes: improvements to storm sewer system (sediment basin at the outfall) and sanitary sewer system (re-lined the main and repaired services) -- progress meetings were conducted during the course of the project and a weekly progress up-date was posted on the city website and sent out by social media.
- ♦
- ♦ Grimes 2012 Watermain Improvements Project: approximately 21 blocks of the city had water main replaced and services re-connected. There were minor changes to the storm sewer system. Progress meeting were conducted and residents were informed by handbills delivered to their residence as well as posting on city website and social media.
- ♦
- ♦ Meadowlark South Plat 3: Subdivision, 10.48 acres, 22 SFR lots – added a dry detention basin for this site. Site has a storm water management facility maintenance covenant and permanent easement agreement.
- ♦
- ♦ Meadowlark South Plat 4: Subdivision, 9.30 acres, 33 SFR lots – added a dry detention basin for this site and swales will establish with native grasses. Site has a storm water management facility maintenance covenant and permanent easement agreement.
- ♦
- ♦ Bridge Creek Plat 3: Subdivision, 10.19 acres, 20 SFR lots – removed a temporary sedimentation basin and replaced with a permanent dry detention basin.
- ♦
- ♦ Brooke Ridge Plat 1: Subdivision, 16.00 acres, 29 SFR lots – added three permanent dry detention basins and one temporary dry detention basin for this site. Site has a storm

water management facility maintenance covenant and permanent easement agreement.

- ♦
- ♦ Silkwood Meadows Plat 1: Subdivision, 13.26 acres, 30 SFR lots – added three (3) dry detention basins for this site.
- ♦
- ♦ North Park Estates: Subdivision, 11.40 acres, 22 SFR lots – added a dry detention basin for this site.
- ♦
- ♦ Beaverbrooke West Plat 8: Subdivision, 46.91 acres, 129 SFR lots – added one wet detention pond, one temporary sediment basin, one permanent detention basin for this site.
- ♦
- ♦ Beaverbrooke West Plat 9: Subdivision, 22.75 acres, 73 SFR lots – added one temporary sediment basin and one permanent detention basin for this site.
- ♦
- ♦ Soil tek: commercial lot, 5.00 acres of developed land, ***disconnected from a septic sewer system*** and added one dry detention basin.
- ♦
- ♦ Canoyers Retail Garden Center: commercial lot, 3.025 acres, added one dry detention basin to the site.
- ♦
- ♦ Burger King: commercial lot, 1.11 acres, new fast food restaurant, storm water drains to the Walmart detention basin.
- ♦
- ♦ Premier Concrete Pumping: commercial lot, 2.566 acres, add dry detention basin and use rain garden seed mixture to stabilize. Site has a storm water management facility maintenance covenant and permanent easement agreement.
- ♦
- ♦ Tender Years Day Care: commercial lot, 1.63 acres, new office building, swales feed to three area intakes.
- ♦
- ♦ Grimes Crossing Senior Apartments: commercial lot, 31 unit apartment building, 2.21 acres, two (2) dry detention basins added to the site, both are to be planted with SUDAS Wetland grass mix. Site grading was started in 2013, construction to be completed in 2014. Site has a storm water management facility maintenance covenant and permanent easement agreement.

Informal meetings were held at City Hall on an as needed basis for builders who didn't understand stormwater ordinances.

#### *Homeowner/Neighborhood meetings*

**SE Main Street Improvements Project** – see Appendix O for materials representative of the communication efforts during construction of the project.

*Any Other Actions Taken by the Permittee Required by this Permit During the Reporting Period*

**Iowa Department of Natural Resources Audit of the MS4 permit**

Thursday June 27, 2013, 9:00 a.m. at Grimes City Hall front conference room  
Kate Bason (IDNR) met with Joe McAreavy (Grimes Public Works Director),  
Scott Clyce (Grimes Building Inspector), and Brandt Williamson (FOX  
Engineering Associates, Inc.) to review compliance with the NPDES permit.

The last permit audit was July 17, 2009.

Materials presented during the review included: annual report for 2010, 2011  
& 2012; binder containing quarterly inspection reports; binders containing the  
comprehensive maps for the City storm sewer and sanitary sewer; various  
construction drawings and correspondences regarding current construction in  
the City.

The IDNR sent a request on July 17<sup>th</sup> for additional information regarding the  
FedEx site to which a reply was sent on July 18<sup>th</sup>.

The IDNR issued a revised follow-up report on July 30<sup>th</sup>, noting several non-  
compliance items (Fertilizer and Pesticide Program and Adopt-a-Stream  
Program) to which a reply was sent September 20<sup>th</sup>.

See Appendix N for information and correspondence related to the audit.

- End of Report -

## Table of Contents for Appendixes

Appendix A	<b>Social Media Up-dates</b> (8 pages)
Appendix B	<b>Telephone Hotline Activity</b> (47 pages)
Appendix C	<b>Iowa Storm Water Education Program</b> (6 pages)
Appendix D	<b>Stormwater Advisory Group volunteer Lee Goldsmith</b> (14 pages)
Appendix E	<b>Adopt-a-Stream Program – clean-up</b> (15 pages)
Appendix F	<b>Storm Water Management Facility Maintenance Covenant &amp; Permanent Easement Agreements</b> (28 pages)
Appendix G	<b>Pesticide &amp; Fertilizer Management Program</b> (106 pages)
Appendix H	<b>Conferences/Training</b> (13 pages)
Appendix I	<b>City Facilities BMP's</b> (5 pages)
Appendix J	<b>City Building Inspector Enforcement Actions</b> (9 pages)
Appendix K	<b>Illicit Discharges</b> (5 pages)
Appendix L	<b>Storm Water Utility Fee Ord. amendment</b> (5 pages)
Appendix M	<b>Homebuilder letters &amp; maps regarding storm water concerns in platted subdivision</b> (36 pages)
Appendix N	<b>IDNR audit of MS4 permit</b> (69 pages)
Appendix O	<b>SE Main Street Reconstruction Project Communications</b> (5 pages)